

REMARKS

In response to the Office Action mailed June 29, 2004, Applicant amends his application and requests reconsideration. In this Amendment claim 4 is newly cancelled and claims 14-16 are added. Accordingly, claims 1-3, 5, and 9-16 are now pending.

Claims 9 and 11-13 are allowed. Therefore, no further comment on those claims is necessary. In this Amendment, two formerly missing words are added to claim 9 and a formatting error in the final paragraph of the claim is corrected. However, there are no other changes to any of claims 9 and 11-13 so that those claims remain allowable.

In this Amendment claim 4 is essentially rewritten in independent form as amended claim 1. In amending that claim 1, certain clarifications are made to define the battery chamber more clearly as including an internal part within the second casing part and an external part. This description is clearly supported by the application as filed which shows, in Figure 3, a typical rechargeable battery structure. Part of that battery structure, as shown in Figure 4, the battery stem 214, extends into the inner chamber part 150A, the internal part of the battery chamber, and the remainder of the battery is received in the external part of the battery chamber. Thus, part of the battery, namely the part identified as the body 210, protrudes from the battery chamber and forms a weighted base for the battery-operated light. This assembly is shown not only in cross-section in Figure 4, but also in side and rear views in Figures 1 and 2 of the patent application.

Dependent claims 2, 3, and 5 are amended to conform to amended claim 1. These amended claims are clearly supported by the original disclosure. Claim 10 is improved in form.

Newly added claims 14-16 are based upon examined claim 1 and also specify that the range of input voltages to the voltage regulator extends from 9.6 volts to 18.0 volts, as described in the patent application, for example at page 10 in the paragraph beginning in line 15. Further, newly added claims 15 and 16 are copied from claim 10 and are consistent with the original disclosure pertaining to original claim 10 as well as the example described at page 9, line 5 of the patent application. Lines 5-8 at page 9 of the patent application also provide support for newly submitted claims 14-16.

Claims 1-5 were rejected as anticipated by Penney et al. (U.S. Patent 4,345,304, hereinafter Penney). This rejection is respectfully traversed as to examined claim 4 and as to amended claims 1-3 and 5.

In rejecting examined claim 4, the Examiner directed attention to Figure 1 of Penny suggesting that the casing including parts 22 and 24 "has a lower end forming part of the battery chamber 26 having a bottom opening of the chamber, a battery pack 42."

It is quite apparent from the figures of Penney, as well as from the description, that Penney contemplates a lamp assembly including a totally internal battery that is charged by connecting a cable to a connector available at the outside surface of the casing containing the battery. No part of the battery protrudes from any part of the casing of the Penney flashlight and all of the battery 42 is received within the internal part of the battery chamber. See, for example, Figures 4 and 5 of Penney showing a completely closed unit with no part of the battery extending outside of the casing of the Penney flashlight. Moreover, the casing part 22 in Penney including the bulb requires that the casing part 24 correspond to the second case part of claim 1. Clearly, there is no such correspondence because the casing structure and battery coupling arrangement of claim 1 has no counterpart in Penney. The only way the Penney battery could protrude from any part of Penney's case is if the case is not assembled, a totally non-utilitarian situation.

As discussed in more detail below with respect to claim 14, there is no voltage regulating circuit in Penney. For this additional reason, Penney cannot anticipate claim 1.

With respect to claim 2, it is apparent that there is no external part of any battery chamber in Penney, much less one with a rim that is the same size and shape as that of a battery that the external part of the battery chamber receives. If the Examiner disagrees, Applicant respectfully requests an identification by reference number of the rim in Penney.

Claim 3 specifies that a second casing part has an *outer* surface that is flush with part of a battery connected to the lighting device. There is no such surface in Penney. Claim 3 cannot be anticipated by Penney.

The handle of the lighting device is described in claim 5 as intermediate the first and second casing parts that respectively house the bulb and the battery. The handle 28 in Penney is not interposed between the battery and the light bulb.

Because of these many differences between claims 1-3 and 5 are Penney, upon reconsideration, the rejection should be withdrawn as to claims 1-3 and 5.

Claim 10 was rejected as unpatentable over Penney in view of Haskett et al. (U.S. Patent 5,908,233, hereinafter Haskett). This rejection is respectfully traversed.

This rejection is founded upon the assertion that Penney anticipates all of the examined claims 1-5, including claim 4 which is now part of amended claim 1. Because that fundamental premise of the rejection is erroneous and cannot be maintained, neither can the rejection of claim 10.

New claim 14 emphasizes the characteristics of the voltage regulating circuit and, in particular, its input voltage range. That input voltage range corresponds to voltages of commonly available rechargeable batteries employed in power tools. In citing Penney, the

Examiner directed attention to its Figure 12 as illustrating a voltage regulating circuit 38 meeting the terms of claim 1. However, Applicant respectfully disagrees with this characterization of the circuit shown in Figure 12 of Penney.

First, Penney never describes that circuit 38 as a voltage regulator. Rather, what is shown in Figure 12 of Penney is described simply as "lamp circuitry". The inputs to the circuit 38 shown in Figure 12 of Penney are charging voltages for charging the battery 42 that is not even shown in that Figure 12. Circuit 38 includes a Zener diode 112 connected in series with a light emitting diode and a resistor. This series circuit is connected across the battery. When the light emitting diode emits light, the battery is charged to at least a threshold voltage. Those three circuit elements clearly do not provide any regulation of the voltage applied to the light bulb 32. Those circuit elements only provide an indication of the relative magnitude of the battery voltage.

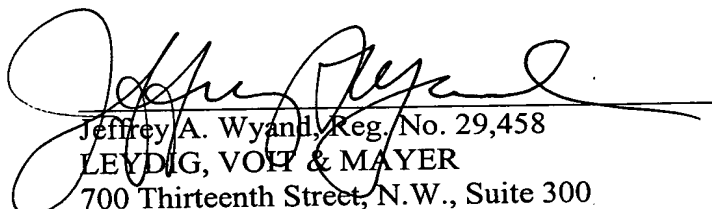
The circuit 38 also includes a Zener diode 126 connected across the terminals of the battery 42 that is not illustrated. This diode 126 "is included to provide a constant end of charge potential to the battery during recharging of that battery. Diode 126 also minimizes battery overcharging." Thus, the diode 126 does not regulate the voltage output by any battery to power the light bulb 32 in Penney. In fact, the diode 126 is not a regulating device at all but a protective device that protects the battery, not illustrated in Figure 12 of Penney, from an excessive changing voltage when the switch 112 in Figure 12 of Penney is in the position indicated by the solid line in that Figure 12. The only time that the diode 126 could function to change a voltage output by the battery 42 would be when the switch 112 is in the broken line position indicated as "bulb operation" in Figure 12 of Penney. However, the diode 126 cannot operate as a voltage regulating circuit in that position of the switch 112 for two fundamental reasons. First, and most important, the polarity of the diode 126 is such that if the Zener voltage of the diode is exceeded, i.e., if the battery voltage is too high for the bulb 32, then substantial current flows through the Zener diode 126 in the reverse direction. The amount of current that would flow is very large because there is no current limiting resistor, like the resistor 124 in a different part of that circuit 38, connected in series with the diode 126. For example, if the bulb 32 were rated at 9.3 volts, as in the example of the invention described in the patent application and in claim 16, and the input voltage to the Zener diode 126 were 13.2 volts, another example in the present patent application, the Zener diode 126 would be destroyed by the excessive reverse current flow well before the voltage from the battery would decline to 9.3 volts. In other words, while the diode 126 in circuit 38 of Penney can be considered a protective device protecting the battery 42 from excessive charging, it cannot be considered a voltage regulating device regulating the battery voltage applied to the bulb 32.

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No other elements in the lamp circuitry 38 of Penney can even potentially regulate the battery voltage applied to the lamp 32. In other words, the second reason why Penney cannot anticipate claims 14-16, and even claim 1, is that Penney never discloses a voltage regulating circuit regulating the voltage applied to the bulb to any voltage, much less to the operating voltage of the bulb. Therefore Penney cannot anticipate nor make obvious any of newly submitted claims 14-16 or any of claims 1-3, 5, and 10.

For the foregoing reasons, all of claims 1-3, 5, and 9-16 should now be allowed.

Respectfully submitted,


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